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WHAT IS CLAIMED IS:

In an automatic stainer for staining specimens that are arranged on specimen slides and embedded in a medium, said stainer comprising a plurality of reagent containers arranged one after another to successively receive said specimen slides for treating said specimens, a plurality of transport baskets each carrying one or more of said specimen slides such that said plurality of transport baskets can be received simultaneously each in a different one of said plurality of reagent containers, a motorized transport mechanism having a lifting device for simultaneously lifting said plurality of transport baskets out of said reagent containers and transporting said plurality of transport baskets into successive reagent containers, the improvement comprising:

a heating station arranged before said plurality of reagent containers for heating said specimen slides and melting said embedding medium, said heating station having at least one melting container for simultaneously receiving more than one of said plurality of transport baskets.

- 2. The improvement as defined in Claim 1, wherein said heating station comprises an oven housing that is equipped with a fan and an electric heating package for producing heated air.
- 3. The improvement as defined in Claim 2, wherein said oven housing comprises an air distributor that directs said heated air via openings in said melting container onto said specimen slides.
- 25 4. The improvement as defined in Claim 2, wherein said heating station further comprises a controller for adjusting the temperature in said at least one melting container.
- The improvement as defined in Claim 4, wherein said heating station comprises two said melting containers arranged next to one another, and the temperature in each of said two melting containers can be adjusted separately by way of said controller.

6. The improvement as defined in Claim 1, characterized in that said lifting device comprises two transport rails, arranged parallel to one another, which are each equipped with a transport notch in a region of said plurality of reagent containers and with a sawtooth profile in a region of said heating station, whereby in said region of said plurality of reagent containers said plurality of transport baskets is transported into the next respective reagent containers with one transport stroke, and in said region of said heating station said plurality of transport baskets travel a shorter distance with the same transport stroke.

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7. The improvement as defined in Claim 6, wherein said heating station further comprises two support rails parallel to said transport rails, each of said support rails having a plurality of spaced grooves for supporting one of said plurality of transport baskets while said transport basket is received by said melting container.

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- 8. The improvement as defined in Claim 7, wherein the spacing between adjacent grooves of said support rails is half as great as the spacing between successively adjacent reagent containers.
- 20 9. The improvement as defined in Claim 7, wherein said sawtooth profile of said transport rails is dimensioned such that in the region of said heating station each said transport basket is conveyed into the next adjacent groove of said support rails with one transport stroke.
- 25 10. The improvement as defined in Claim 1, wherein said heating station (8) is configured as a retrofittable separate module for said automatic stainer.